the sole to the ground before the parts had become moulded to their abnormal position.—*Medical Times and Gazette*, December 7, 1861.

59. *Osteo-Plastic Resection of the Upper Jaw.*—This operation consists in separating the upper jaw from its connection with other bones, and again restoring it to its normal position. An operation of a similar kind was first done by Professor Langenbeck, two years ago, when he extirpated a naso-pharyngeal polypus; in that case he excised the nasal bone and the nasal process of the upper jaw, removed the tumour, and afterwards replaced the bones, with complete success. Another case in which the whole half of the upper jaw was first excised and then replaced, occurred in the practice of this distinguished surgeon a few weeks ago.

The seat of naso-pharyngeal polypi is such as to require the resection of one-half of the upper jaw, and this has been done repeatedly, in France especially, by Messrs. Robert and Maisonneuve. In the cases which occurred in Professor Langenbeck's practice, he had always been able to perform extraction either from the mouth or the nostrils, or by division of the soft palate, and resection of the horizontal part of the os palatinum, or the resection of the nasal process of the upper jaw. He was, therefore, averse to the extirpation of the upper jaw, especially as experience has shown that a recurrence of the tumour is not prevented thereby. There are, however, tumours which are attached in the neighbourhood of the Eustachian tube, and the foramen spheno-palatinum, and the sinus sphenoidalis, which cannot be completely removed unless the upper jaw is taken away. Besides, tumours are now and then observed in the fossa pterygo-palatina, which grow partly towards the naso-pharyngeal cavity, partly towards the fossa spheno-maxillaris, so that the upper jaw is quite surrounded by them, and must necessarily be removed before the surgeon can attempt extirpating the tumour. Professor Langenbeck, however, satisfied himself, by a close examination of the skull, that the region just described would become quite accessible by only removing the upper part of the jaw, without taking away the hard and soft palate and the alveolar process. Having been struck by this idea, he conceived that it might be possible to replace the upper jaw after the operation, just as he had succeeded in doing before with the nasal bone and the nasal process of the jaw. It was, of course, necessary to avoid the destruction of the soft coverings of the jaw, the skin of the face, the mucous membrane, and the periosteum of any part of the bone; and it was obvious that, on one point at least, it ought to remain attached to the neighbouring bones, in order to allow a sufficient supply of blood. These conditions he purposed to fulfil, by not separating the soft parts of the face from the bone, but merely cutting them through down to the bone, in the same direction in which the saw would have to work, and by leaving the nasal process of the upper jaw in contact with the nasal bone and the nasal process of the frontal bone.

The following are a few particulars of the case in which this operation was first performed with successful result: The patient, a boy, aged 15, had always been healthy until two years ago, when he perceived a want of air in the left nostril, which soon became perfectly impermeable, the voice being changed at the same time. About seven weeks ago, the left cheek and the eye began to protrude, and the latter, although otherwise healthy, was no longer used for seeing. No tumour was visible from the nostril, nor from the mouth, while in the middle of the left palatine process of the upper jaw the floor of the cavity of the nose appeared to be pressed toward the cavity of the mouth, and this part felt soft and elastic on account of the dislodgment of the palatine bone. Behind the soft palate, a firm, lobular tumour could be felt in the left choana, which was quite filled up by it, the introitus into the left side of the nose being blocked up. This latter space appeared to be considerably enlarged, while the right choana and nostril were narrowed. The osseous septum narium was dislodged towards the right side. The teeth in the left upper jaw were quite healthy and fast. The slight prominence of the left cheek was caused by a tumour between the masseter muscle and the upper jaw. The left zygomatic arch was a little more prominent, and the lower part of the left fossa temporalis fuller, than is commonly the case. Nothing morbid could be discovered in the orbit.

Other surgeons who had seen this patient contended that it was a case of naso-pharyngeal polypus; but Professor Langenbeck argued, against this opinion, that all tumours which are not cancerous—as, for instance, the polypi—grow in that direction in which the least resistance is offered by surrounding parts; and that, therefore, a naso-pharyngeal polypus would grow into the sinus frontalis, sphenoidalis, and maxillaris, and the labyrinth of the ethmoid bone, and might distend the walls of those cavities, but that it could not grow from the naso-pharyngeal cavity into the fossa pterygo-palatina, and round the upper jaw forwards. Others thought that a tumour in Highmore's cavity existed; but to this M. Langenbeck objected that the walls of that cavity were nowhere projecting, but, on the contrary, its external wall was decidedly flattened. He, therefore, before performing the operation, mentioned that the case was one of a fibroid of the fossa pterygo-palatina, which had grown from there through the foramen spheno-palatinum into the naso-pharyngeal cavity, the fossa spheno-maxillaris, and round the upper jaw, between its external wall and the masseter muscle, towards the mucous membrane of the cheek. He also said that the resection of the zygomatic arch, which he had done in a previous case, was sufficient for the extirpation of tumours which grew from the fossa pterygo-palatina into the fossa spheno-maxillaris and temporalis; but that, in this patient, in whom the tumour had penetrated from the fossa pterygo-palatina into the naso-pharyngeal cavity, the resection of the entire left half of the upper jaw was absolutely necessary. In order to avoid mutilation of the face, he intended trying to replace the upper jaw after the removal of the growth.

The operation was done on July 1st, the patient being under the influence of chloroform. Two incisions were then made through the skin, the lower one of these from the place of insertion of the left ala nasi in the cheek, and through this towards the lower edge of the zygomatic arch, and along this bone to the middle of the zygomatic process of the temporal bone. The upper incision proceeded from the nasal process of the frontal bone along the lower edge of the orbit, and beyond the frontal process of the upper jaw to the middle of the zygomatic process of the temporal bone, where it met the lower incision at an obtuse angle. Without separating the skin from the soft parts below it, the operator then penetrated through the lower incision towards the jaw, cut through its periosteum, and separated the masseter muscle from the lower edge of the zygomatic bone. After the fascia buccalis, which was strongly prominent, had been cut through, a lobular, white, shining tumour became visible, which extended, between the external surface of the upper jaw and the coronoid process of the lower jaw, towards the fossa spheno-maxillaris backwards. After the lower jaw had been separated from the upper one by means of a speculum, the tumour could without difficulty be removed from the upper jaw, and the left forefinger, proceeding between the upper jaw and the tumour, could reach the fossa pterygo-palatina. As the upper jaw had been compressed by the tumour, and the fossæ spheno-maxillaris and pterygo-palatina were considerably enlarged, a slight pressure was now sufficient to allow the introduction of a fine elevatorium into the pharyngeal cavity. A fine and straight narrow saw was then introduced from without into the pharyngeal cavity, through the fossa pterygo-palatina and the foramen spheno-palatinum; and the operator sawed through the whole upper jaw, from behind forwards, with a horizontal cut, while the left forefinger, which had been introduced into the pharyngeal cavity from the mouth, caught the point of the saw, and prevented its touching the septum narium. The second incision through the skin was then likewise made down to the bone; the operator penetrated into the orbit and cut the soft parts in the angle between the frontal and temporal processes of the zygomatic bone. The second cut of the saw went from below upwards, through the zygomatic process of the temporal bone, and through the orbital process of the upper jaw to the lachrymal bone. The resected jaw was now only connected with the left lachrymal bone and the nasal process of the frontal bone by means of its nasal process, which had not been divided; and in this part the skin had also been left entire, in order to allow nutrition to go on. Neither were the hard palate and the alveolar process of the jaw touched. The jaw was now raised by means of an elevator, introduced below the zygomatic bone. This was done without any difficulty, the jaw moving easily

in the connection with the left nasal bone and the nasal process of the temporal bone, as if it were in a joint, and was raised like the lid of a snuff-box, so that the zygomatic bone was nearly on the median line of the face; and the fossæ spheno-maxillaris and pterygo-palatina, and the naso-pharyngeal cavity, had thus become easily accessible. The peduncle of the tumour was now seen to be attached in the fossa pterygo-palatina, proceeding from there towards each side; it was as large as a fowl's egg, and one part filled the naso-pharyngeal cavity; the other the fossa spheno-maxillaris. The antrum Highmori, which had been opened by the horizontal cut of the saw at its inferior point, was empty and quite normal, although somewhat narrowed by the pressure of the tumour from behind and without. The peduncle of the tumour was then separated, by means of a broad elevator, from the fossa pterygo-palatina; the part, which was in the cavity of the pharynx, was then caught with a strong polypus-forceps and drawn out. The foramen spheno-palatinum and the fossa pterygo-palatina were enlarged to three times their normal size. The tumour was then entirely removed; and nowhere could a perforation of the basis cranii be discovered.

The hemorrhage during the operation was very considerable, on account of the dilatation of the arteries; but at the end it ceased spontaneously. Only the arteria spheno-palatina was tied at its entrance in the foramen spheno-palatinum, and the ligature conducted through the left nostril. After the wound had been most carefully cleaned, and the operator had again satisfied himself that nothing was left behind, the jaw was again pressed backwards into its normal position, and the places where it had been sawed brought into contact. The jaw showed a disposition to swing upwards to the nose, so that a slight pressure had to be exercised upon it before the wound was entirely united by means of iron sutures. Some cerate and a thick layer of charpie was then placed upon the wound, and fixed by a bandage. The operation had lasted nearly an hour. Much chloroform had been used, and the little patient had shown some excitement during the intervals of insensibility.

The further course of this case was very satisfactory. There was at first some fever and suppuration; but, in little more than a fortnight, the wound was quite healed. The appearance of the face was then nearly normal. The upper gum had quite regained its usual position, and there was no swelling of the soft parts; only the conjunctiva palpebrarum was a little puffed, but the eye did no longer protrude. There was imperfect palsy of the orbicularis muscle, and the eyelids could not be quite closed. Besides, the infraorbital nerve and the ganglion spheno-platinum had been destroyed by the operation, so that there is, of course, anæsthesia of the parts animated by them. In all other respects it was a perfect cure; and it appears, therefore, that henceforward it is no longer allowed to remove the upper jaw in cases of this kind. We may well congratulate M. Langenbeck for having successfully completed—not only a novel operation of importance—but one of the nicest and most difficult on record.—*Med. Times and Gazette*, Sept. 7, 1861.

OPHTHALMOLOGY.

60. *Diabetic Cataract.*—Dr. Lécorché has recently published a work on this affection which has not yet reached us, but the Paris correspondent of the *Lancet* (see number for October 5, 1861) gives the following interesting summary of it:—

"The diabetic cataract has for several years past been admitted as a pathological fact by both physicians and oculists, and the latter have learnt by experience to know that the methods usually resorted to for the relief of the ordinary forms of cataract have been remarkably unsuccessful in this particular variety. M. Lécorché's work is dedicated more especially to the solution of the surgical difficulty, and furnishes at the same time a contingent of original matter in connection with the symptomatology of this special type of lenticular opacity. Age,